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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/662,595	09/15/2003	Rongsheng Miao	50734/MJM/E349	1302

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EXAMINER

MOONEY, MICHAEL P

ART UNIT PAPER NUMBER

2883

DATE MAILED: 11/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/662,595	<b>Applicant(s)</b> MIAO ET AL.	
	<b>Examiner</b> Michael P. Mooney	<b>Art Unit</b> 2883	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 August 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 7, 8, 10-13, 15, 16, 18, 19 and 21-25 is/are rejected.
- 7) ☒ Claim(s) 4-6, 9, 14, 17, 20, 26 and 27 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

### DETAILED ACTION

Additional searching has yielded another applicable reference. Please see the rejection infra.

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

**Claims 1-3, 7-8, 10-13, 15-16, 18-19, 21-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arima et al. (20040042754).**

Arima et al. teaches a fiber optic package (fig. 7A) comprising an optical fiber bonded to a substrate 34 surface by an adhesive layer 36' covered by a diffusion retarding plate 39 formed of a moisture-resistant material, said diffusion retarding plate 39 covering an entire upper surface of said adhesive layer 36' (fig. 7A)

Although Arima et al. does not expressly use the word "epoxy", it would have been obvious to do so because Arima et al. does teach using rubber elastomer or rosin

as the adhesive layer (e.g., paragraph 0036) and it is conventionally known to use rubber elastomers that include epoxy-modified or epoxidized natural rubber. Therefore

One of ordinary skill would be motivated to use, e.g., an epoxidized natural rubber elastomer as the adhesive layer because of the favorable moisture-resistance properties and durability of an epoxidized natural rubber elastomer. It is additionally noted that for the same and/or similar reasons, one of ordinary skill would be motivated to use an epoxy rosin as the adhesive layer.

Furthermore, resin, e.g. polyimide, sheet 39 is inherently a plate.

It is also noted that the resin/polyimide used by Arima et al. inherently has moisture resistant capabilities. Therefore, the resin/polyimide sheet used by Arima et al. is a moisture-resistant material.

Thus claim 1 is rejected.

By the reasons/references given above, Arima et al. renders obvious each and every element of claims 2-3, 7-8, 15-16, 18-19. Thus claims 2-3, 7-8, 15-16, 18-19 are rejected.

Although Arima et al. does not explicitly state that the epoxy/adhesive used at, e.g., figure 7A is "non-conductive" it would have been obvious to do so because it is conventional to use non-conductive epoxy in an embodiment such as said figure 7A.

Thus claim 10 is rejected.

Arima et al. teaches wherein said fiber optic package comprises an optical subassembly, and said optical fiber, said substrate surface, said epoxy and said

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diffusion retarding plate form part of said optical subassembly (fig. 2; fig. 5). Thus claim 11 is rejected.

Arima et al. teaches wherein said fiber optic package comprises an optical subassembly, and said optical fiber, said substrate surface, said epoxy and said diffusion retarding plate form part of said optical subassembly (fig. 2; fig. 5). Thus claim 12 is rejected.

Arima et al. teaches wherein said diffusion retarding plate further includes opposed legs that contact said substrate surface (fig. 5). Thus claim 13 is rejected.

By the reasons and references given above each and every element of method claims 21-25 is rendered obvious. If Applicant disagrees with this obviousness holding, then Applicant should submit evidence showing this obviousness holding is errant. Examiner will then consider restricting. Thus claims 21-25 are rejected.

#### ***Allowable Subject Matter***

Claims 4-6, 9, 14, 17, 20, 26-27 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The prior art, either alone or in combination, does not disclose or render obvious wherein said lateral portions each include a width being about 10 to 20 times as great as a diameter of said optical fiber in combination with the rest of claim 4.

It is noted that the claim 4 is allowable because the unique combination of each and every specific element stated in the claim.

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The prior art, either alone or in combination, does not disclose or render obvious wherein the optical fiber is disposed on said substrate surface in combination with the rest of claim 5.

It is noted that the claim 5 is allowable because the unique combination of each and every specific element stated in the claim.

The prior art, either alone or in combination, does not disclose or render obvious wherein said optical fiber is disposed over said substrate surface and said epoxy includes a top portion formed over said optical fiber and including a thickness ranging from 0.5 to 1 times a diameter of said optical fiber in combination with the rest of claim 6.

It is noted that the claim 6 is allowable because the unique combination of each and every specific element stated in the claim.

The prior art, either alone or in combination, does not disclose or render obvious wherein said diffusion retarding plate is formed of one of ceramic and metal in combination with the rest of claim 9.

It is noted that the claim 9 is allowable because the unique combination of each and every specific element stated in the claim.

The prior art, either alone or in combination, does not disclose or render obvious wherein said epoxy is bounded superjacent by an upper portion of said diffusion retarding plate, and at least part of said epoxy is bounded laterally by said legs of said diffusion retarding plate in combination with the rest of claim 14.

It is noted that the claim 14 is allowable because the unique combination of each and every specific element stated in the claim.

The prior art, either alone or in combination, does not disclose or render obvious further comprising said diffusion retarding plate including legs that laterally bound said epoxy in combination with the rest of claim 17.

It is noted that the claim 17 is allowable because the unique combination of each and every specific element stated in the claim.

The prior art, either alone or in combination, does not disclose or render obvious wherein said moisture resistant member comprises a cover that substantially directly surrounds said epoxy superjacent and laterally in combination with the rest of claim 20.

It is noted that claim 20 is allowable because the unique combination of each and every specific element stated in the claim.

The prior art, either alone or in combination, does not disclose or render obvious wherein said diffusion retarding plate further includes legs and said covering includes positioning said legs to bound opposed sides of said epoxy in combination with the rest of claim 26.

It is noted that claim 26 is allowable because the unique combination of each and every specific element stated in the claim.

The prior art, either alone or in combination, does not disclose or render obvious wherein said joining comprises fixing said optical fiber in position using a first portion of said epoxy then adding a second portion of said epoxy, said first portion comprising a

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UV epoxy and said second portion comprising a thermal epoxy in combination with the rest of claim 27.

It is noted that claim 27 is allowable because the unique combination of each and every specific element stated in the claim.

**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael P. Mooney whose telephone number is 571-272-2422. The examiner can normally be reached during weekdays, M-F.

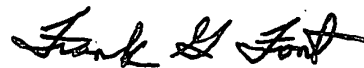
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank G. Font can be reached on 571-272-2415. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-

1562.



Michael P. Mooney  
Examiner  
Art Unit 2883



Frank G. Font  
Supervisory Patent Examiner  
Art Unit 2883

FGF/mpm  
11/5/05